# Evelyn (Eve) Jessup Bingham Senior Environmental and Mining Project Manager

Mine Closure Planning and Remediation Environmental Management and Auditing Environmental Impact Assessment

## **Professional History**

#### Education

BS, Geology, University of Michigan

### Years of Experience

With AECOM 3.5
With Other Firms 30

#### **Professional Affiliations**

Society for Mining Metallurgy and Exploration (SME) International Council on Mining and Metals (ICMM) Arizona Mining Association Mineral Council of Australia Mining Association of Canada

# **Training and Certifications**

BHP Global Leadership Development Program Arizona State University study toward MS, International Environmental Management Ms. Bingham provides technical closure planning and environmental support to a wide range of mining projects internationally. With more than 30 years of mining experience, her practical knowledge of metal, coal and industrial minerals mining best practices provides the foundation to develop accurate, efficient mine closure plans, closure cost estimates, mine remediation, and environmental impact assessment documents for a wide range of stakeholders. With extensive experience in senior environmental management positions for BHP Billiton, CERCLA and state superfund mine remediation programs, and NEPA EIS project management with government agencies, she is adept at understanding, communicating and working collaboratively across disciplines with government, industry and community stakeholders to identify and achieve project goals.

Ms. Bingham excels at technical editing, closure and remediation strategy, project direction and management, team and public involvement, qualitative risk assessment workshop facilitation, management of mine water systems, mine site environmental management and permitting, and environmental management system auditing.

## Representative Experience

Closure Plan Audit: AECOM Mine Closure Plan Audit, Teck Alaska Incorporated, Red Dog Operations Alaska. Mine closure plan auditfor an openpit mine operating above the Arctic Circle. Conducted an objective, systematic site and closure planaudit with a multidisciplinary team to assess compliance with the operation's Waste Management Permit and Reclamation Plan Approvates required by state agencies Included assessment of whether controls implemented by the site provide reasonable assurance that environmental objectives are being met Organized and collated overall audit results in database to facilitate performance review by state agencies and provide the mining companya basis for a mine closure plan update 2013 – 2014.

Closure Plan Review: AECOM Senior Closure Plan Review, Aboriginal Affairs and Northern Development Canada (AANDC), Nunavut Regional Office, Iqaluit, Nunavut, Canada. Ms. Bingham is part of a multidisciplinary team developing technical comments for AANDOwith regard to mine EIS and water license applications Review of closure plans for the Sabina Gold and Silver Corp, Black River ProjectDraft EIS and water license application. Closure plan review for Newmont's Hope Bay Mining Ltd-Doris North water license application. Issues include First Nation end land use, timing of closure plan implementation, water and permafrost resources. 2012- 2013.

Mine Remediation/Closure Planning: AECOM Senior Technical Review, Nu West Industries, Idaho USA. Providing senior level strategy and support to project team developing remedial plans for closed and active phosphate mines located on USDA Forest Serviceland. Program includes development of hydrologic conceptual models, human health and ecological rislassessment, site remedial investigation, remedial feasibility studies, and ongoing monitoring. Participating witl client in a multi-consultant coordination group to assure overall project goals in the watershed are met efficiently and effectively2014.

Closure Planning: AECOM Mine Closure Planning Project Advisor, Vale Ltd, Minas Aguas Claras Mine, Minas Gerais, Brazil. Ms. Bingham directed the strategy and provided senior technical review for a closure plan update for a non-operating open-pit iron mine located in a densely populated community. The project included presentation of best practice international closure planning principles, assisting the client in crystallizing scope and stakeholder approach, and coordinating an international multidisciplinary project team to develop a mine closure plan and closure cost estimate for the client. 2012-2013.

Closure Planning: AECOM Mine Closure Plan Development, Quest Rare Minerals Ltd., Strange Lake Mine, Newfoundland and Labrador; and Quebec Canada. In conjunction with the project engineering team, Ms. Bingham developed a conceptual closure plan for a proposed rare earth element (REE) open-pit mining operation The closure plan integrated closure for the open-pit mine site, a 160 km access road and a port facility located in northern Quebec, Newfoundland and Labrador. Closure of the associated REE processing plantand residual waste management facility in suthern Quebec was included in the conceptual closure plan A qualitative risk assessment approachwas used to understand and manage closure risks and opportunities including First Nations end land use, public stakeholder perception, water quality protection, post-closure monitoring and maintenance, and permafrost resources. Teamed with AECOM's cost estimator specialists to develop a RECLAIM closure cost model for decommissioning, disposal, reclamation and long-term monitoring. 2012 -2013.

NEPA: AECOM Assistant Project Manager, EIS projects for Barrick Gold Corporation's Arturo Mine Expansion and Newmont's Buffalo Valley Mine, Nevada, USA Ms. Bingham provided project management, public involvement, and technical support in the development of third-party Environmental Impact Statements (EISs) for gold mining projects on federal (BLM) land. Record of Decision complete May 2014. Responsibilities included managing public and agency input through meetings and written comment processes, developing project and alternative descriptions, fine-tuning mine closure plans and

developing mitigation plans to minimize impact. Responsible for critical document review to assure accuracy and consistency. Issues included building waste rock storage facilities over existing reclaimed facilities, post-closure water quality, air quality and greenhouse gas emissions, cultural and Native American resources, wildlife resources, and range management. 2010-2014.

Impact Assessment: AECOM Assistant Project Manager, ESHIA, Chevron Questa Mine Water Management Projects, New Mexico, USA. Ms. Bingham provided project management and technical support for a multi-disciplinary team completing an Environment, Social, and Health Impact Assessment (ESHIA) for a project improving tailings and water management at a hard rock molybdenum mine that operates within the CERCLA remediation context. Scope included collecting baseline data, identifying potential impacts, evaluating consequences and likelihood of potentially significant impacts in a workshop setting, and developing mitigation, benefit enhancement and monitoring measures. Issues included traffic, noise, and socio-economic pressure on a rural area during project construction; as well as long-term water treatment and release potential effects. 2013.

BHP Billiton, Global Practice Leader Closure Planning, Melbourne, Australia. Ms. Bingham successfully facilitated the implementation of a corporate environmental governance standard at more than 100 sites worldwide. She developed corporate closure planning guidelines and training materials, and conducted closure risk assessment and strategy workshops for cross-functional mining, refining and petroleum teams in Canada, Australia, South Africa, South America, United Kingdom, and the USA. Successfully led the effort to meet the corporate commitment to improve long-term closure planning and cost provisioning for BHP Billiton managed coal, petroleum, and metal operations by a specified date over a 3-year period. Supported the development of updated site-specific closure plans and cost estimates for a number of BHP Billiton's sites globally including: New Mexico Coal (SanJuan and Navajo Mine) operations, Ilawarra coal operations in South Africa, BMA Coal op erations in Queensland Australia, Ekati Diamond Mine in Canada, copper operations in Chile, a closed uranium operation in New Mexico, and an aluminum mine in Suriname. 2005-2009

BHP Billiton Base Metals Closed Mines, HSEC Projects Engineer, Arizona USA. Ms. Bingham provided Health, Safety, Environment and Community (HSEC) and project management support for closed metal mining sites in North America. Responsible for maraging a team of environmental consultants to meet a government-mandated deadline for a mine closure plan revision for the Island Copper Mine site on Vancouver IslandBritish Columbia, Canada. Government agencies were consulted regularly during an 18month process to foster agreement on content. Delivered the document on time and within budge Provided audit, review support for closed uranium mines in Elliot Lake, Ontario, Canadand served as BHP Billiton representative for Mining Association of Canada environmental committees. 20th-2005.

BHP Copper Pinto Valley Operations, Chief Environmental Engineer, Arizona USA. Ms. Bingham was responsible for directing all aspects of environmental compliance for an open pit copper operation covering 10,000 acres (4,000 hectares) of private and USDAForest Service land for more than 12 years.

Developed, implemented, and maintained long-term environmental management systems to assure compliance and ongoing excellence in the areas of surface water, groundwater, air, waste, mine obsure planning and remediation. Directed and participated in public stakehoder meetings for environmental remedial projects and developed site community involvementplans.

Served on the steering committee for the Pinal Creek WQARF site, a joint venture, state "superfund" groundwater remedial project with a focus on building rapport with government and community while developing longterm technical solutions for a complex source control and mitigation program. Ms. Bingham led the environmental program for the successful Pinto Creek tailings impoundment time critical CERCLA compliance actionunder the direction of the USDAForest Service. Ms. Bingham served as chairperson of the Arizona Mining Association's Water Quality Committee forfour years. 1991-2003.

**Mine Engineer, Colorado, USA.** Ms. Bingham gained a broad perspective of mining and environmental aspectsthough exposure to diverse projects and functions including environmental permitting and management, water sampling, underground surveying and ventilation, property research, and map production. Positions included:

- Echo Bay Mining, Sunnyside Mine- Mine Engineer, Silverton, Colorado
- Hecla Day Mines, Sherman Tunnel- Lead Mine Engineer, Leadville, Colorado
- Climax Molybdenum Company- Underground Laborer, Leadville, Colorado

#### **Publications**

Ms. Bingham has authored or contributed to developing a number of publications on subjects related to mining and the environment including:

Closure Planning, Mining Engineering Handbook, Chapter 13, pages 19£206, (author) Society for Mining, Metallurgy and Exploration, published February 2010. Web access: SME Publications

Planning for Integrated Closure: Tolkit, International Council on Mining and Metals publication, 2008 (contributor). Web accessICMM Mine Closure Toolkit 2008

Mine Closure and CompletionBooklet, Leading Practiæ Sustainable Development Program for the Mining Industry Series, Australian Government, Department of Industry Tourism and Resources, October 2006 (contributor). Web accessiving Closure and Completion Handbook-Australian Gov 2006

Evaluation of Mine Tailings Impact to the Environment in Mineralized Terrains Proceedings of the Seventh International Conference on Tailings and Mine Waste '00, January 2000, pages 489-498, R.A.Mongrain, BE.Lary, T.O.Looff, and E.L.J.Bingham (co-author). Web Access:Tailings and Mine Waste '00 Proceedings